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EXAMINER

ABDULSELAM, ABBAS I

ART UNIT PAPER NUMBER

2629

DATE MAILED: 10/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/727,972

Applicant(s)

ROGERS ET AL.

Examiner

Abbas I. Abdulsalam

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 07/17/06.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-32 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

1. This office action is in response to a communication filed on 07/17/06. Claims 1-32 are pending.

#### ***Response to Arguments***

2. Applicant's arguments filed on 07/17/06 have been fully considered but they are not persuasive.

The examiner has applied previously used references after a careful analysis of those references in light of the claim limitations, and response for the applicant's argument is addressed as follows:

#### **Independent Claim 1**

Regarding claim 1, applicant argues the cited reference Kim (USPN 5181029) does not teach a keyboard, which comprises a display as claimed, and also argues that Kim's LCD screen (70) is not part of the keyboard (20). However, as shown in the art rejection below, Kim teaches a template (10), which includes LCD screen (70) such that the template is overlaid onto the computer keyboard (20) (Fig. 1). Clearly as shown in Fig. 1, the overlaid template (10) is part of the keyboard (20) and the examiner maintains that the template (10) is overlaid on the top of the keyboard and is therefore part of the overall keyboard structure. Kim does not teach or suggest that the template (10) and keyboard (20) are two distinct devices. Hence, Kim's display (70) on the keyboard (20) as shown in Fig. 1 reads over the claim limitation, which states "...keyboard comprising a display....".

Independent Claim 6

Regarding claim 6, applicant argues that the cited references Rosenberg (USPN 6693626) and Kim (USPN 5181029) alone or in combination do not teach claim limitation. “a display configurable to display a plurality of icons”. However, as shown in the art rejection below, Kim teaches an electronic keyboard template 10 integrated with computer keyboard 20 that include LCD screen (70) which is designated for each of the function key (50) such that the user is able to define or reconfigure the function key using the with respect to a program selector (80) in order that the desired functions are performed (see col. 3, lines 22-67, col. 4, lines 1-29 and Fig. 1 (50, 70, 80). Applicant also repeats the same argument alleging that Kim does not teach or disclose a keyboard comprising a display. However as shown in the art rejection below, and as explained above, Kim teaches a template (10), which includes LCD screen (70) such that the template is overlaid onto the computer keyboard (20) (Fig. 1). Clearly as shown in Fig. 1, the overlaid template (10) is part of the keyboard (20) and the examiner maintains that the template (10) is overlaid on the top of the keyboard and is therefore part of the overall keyboard structure.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, It would have been obvious to one of ordinary skill in the art at the time the invention was made to replace Rosenberg's keyboard (12) shown Fig. 1 by Kim's integrated

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keyboard-template structure shown in Fig. 1 because the integrated keyboard-template structure is useful in adapting the function keys for a user specified set of operations as taught by Kim (col. 2, lines 10-16).

#### Independent Claims 15 and 23

Regarding claims 15 and 23, applicant argues that the cited reference Rosenberg (USPN 6693626) and Kim (USPN 5181029) alone or in combination do not teaches a claim limitation, “transmitting the icon from the monitor to a keyboard”. However, as shown in the art rejection below, Rosenberg teaches a keyboard device 12 that is coupled to host computer system 14 which includes a display device 26, by a bidirectional bus, the bi-directional bus sending signals in either direction between host computer system 14 and the Keyboard device, see col. 14, lines 7-15). Rosenberg does not teach displaying the icon on the keyboard.

Kim on the other hand teaches screen LCD (70) extending above function keys (50) as shown in Fig. 1(col. 3, lines 40-41).

It would have been obvious to one of ordinary skill in the art at the time the invention wad made to modify Rosenberg’s keyboard device (12) shown in Fig. 6 to adapt Kim’s display (70) as configured in Fig. 1 because mounting the display screen (70) on a keyboard device helps display icons representative of operations performed by function keys as taught by Kim (col. 2, lines 25-29)

Hence, clearly, Rosenberg in view of Kim teaches the claim limitation, “transmitting the icon from the monitor to a keyboard”. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the

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rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Applicant also further argues that the cited references alone or in combination do not teach claim limitations, “selecting an icon from a system monitor” and “displaying the icon on the keyboard”. However as shown in the art rejection below, Rosenberg teaches display screen 26 displays images of a game environment, operating system application, simulation, etc. See col. 13, 63-65 and Fig. 6 (26)). Kim teaches screen LCD (70) extending above function keys (50) as shown in Fig. 1(col. 3, lines 40-41). Hence Rosenberg in view of Kim teaches the argued claim limitations since it would have been obvious for one of ordinary skill in the art to utilize Rosenberg’s display (26) system for the purpose of displaying the desired image.

#### Dependent claim 4

Regarding dependent claim 4, applicant argues that the cited reference, Kim (USPN 5181029) does not teach a display having a single window. However as shown in the art rejection below, Kim teaches an area on the LCD screen 70, which is designated for each of the function keys 50 (col. 3, lines 40-47).

It would have been an obvious matter of design choice to make a single large area display screen 70, since such a modification would have involved a mere change in the size of a component. A change in size is generally recognized as being within the level of ordinary skill in the art *In re Rose*, 105 USPQ 237 (CCPA 1955).

*Claim Rejections - 35 USC § 102*

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3 and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Kim (USPN 5181029).

Regarding claim 1, Kim teaches a user-configurable keyboard (see Fig. 1 (20)) comprising: a display configurable to display a plurality of icons; (LCD screen (70), icons may be displayed within each of the designated areas, see Fig. 1 (70) and col. 3, lines 56-60) and a plurality of keys corresponding to the plurality of icons (an area on the LCD screen (70) is designated for each of the function key (50) so that each of the designated areas is proximate to the function key (50), see col. 3, line 44-48) and configurable to launch one of a software program (a program selector (80) is used to select the desired software program and a user may assign a specified series of keystrokes to a given function key. In PROGRAM mode, the user is able to define or reconfigure a function key using the appropriate keystrokes necessary to perform the desired functions, see col. 3, lines 64-66 and col. 4, lines 9-21).

Note that a keyboard template (10) (overlaid onto the computer keyboard (20)) is an integral part of the overall keyboard structure shown in Fig. 1

Also note that given the way the claim is written, the examiner considers only one of the last two limitations, and hence excludes the limitation stating “a Uniform Resource Locator corresponding to a respective icon”.

Regarding claim 2, Kim teaches the display comprises a liquid crystal display (LCD screen (70), see col. 3, lines 56 and Fig. 1 (70)).

Regarding claim 3, Kim teaches the keys comprise function keys (the function keys (50), see col. 3, 45-46 and Fig 1(50)).

Regarding claim 5, Kim teaches the display comprises a plurality of windows, each window having at least one icon (icons may be displayed within each of the designated 50-pixel by 50 pixel areas on the LCD screen, see col. 3, lines 59-60).

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kim (USPN 5181029).



Regarding claim 4, while Kim teaches an area on the LCD screen 70, which is designated for each of the function keys 50 (col. 3, lines 40-47). Kim does not teach a display having a single window.

It would have been an obvious matter of design choice to make a single large area display screen 70, since such a modification would have involved a mere change in the size of a component. A change in size is generally recognized as being within the level of ordinary skill in the art *In re Rose*, 105 USPQ 237 (CCPA 1955).

5. Claims 6-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rosenberg (USPN 6693626) in view of Kim (USPN 5181029).

Regarding claim 6, Rosenberg teaches a computer system (a haptic feedback interface system, see Fig. 1 (10)) comprising: a console comprising a central processing unit configurable to execute software routines; (a host computer (14), which includes a host microprocessor and which can be one of a variety of home video game console systems implements one or more host application programs, see col. 4, lines, 50-51, col. 4, lines 61-67 and Fig. 1 (14)) a monitor electrically coupled to the console and configurable to display icons corresponding to one of a plurality of software applications (display device 26 can be included in host computer 14, and the host application provides images to be displayed on display device 26 such that the display screen 26 can display images from a GUI or text window, see col. 5, lines 28-34 and Fig. 1 (14, 26)) and a keyboard electrically coupled to at least one of the monitor and the console,( keyboard

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device 12 is coupled to the computer 14 by a bus 22, see col. 4, lines 29-30 and Fig. 1 (12, 14, 22))

Rosenberg does not teach "the keyboard comprising: a display configurable to display a plurality of icons; and a plurality of keys corresponding to the plurality of icons and configurable to launch one of a software program".

Kim on the other hand teaches an electronic keyboard template 10 integrated with computer keyboard 20 that include LCD screen (70) which is designated for each of the function key (50) such that the user is able to define or reconfigure the function key using the with respect to a program selector (80) in order that the desired functions are performed (see col. 3, lines 22-67, col. 4, lines 1-29 and Fig. 1 (50, 70, 80)).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to replace Rosenberg's keyboard (12) shown Fig. 1 by Kim's integrated keyboard-template structure shown in Fig. 1 because the integrated keyboard-template structure is useful in adapting the function keys for a user specified set of operations as taught by Kim (col. 2, lines 10-16).

Regarding claim 7, Rosenberg teaches the console is coupled to a network (host computer system 14 can be a "network-" or "internet-computer", see col. 4, lines 53-69).

Regarding claim 8, Rosenberg teaches the console is coupled to the Internet (host computer system 14 can be used with respect to a "network-" or "internet-computer", see col. 4, lines 53-69).

Regarding claim 9, Rosenberg teaches the system as comprising a mouse (mouse 30 can be connected to the host computer (14), see col. 5, lines 36-37 and Fig. 1(30)).

Regarding claim 10, Rosenberg teaches the keyboard is electrically coupled to the console through a universal serial bus cable (keyboard device 12 is coupled to host computer system 14 by, Universal Serial Bus USB, see col. 14, lines 10-15).

Regarding claim 11, Kim teaches the display of the keyboard comprises a liquid crystal display (LCD screen (70), see col. 3, lines 56 and Fig. 1 (70)).

Regarding claim 12, Kim teaches the keys on the keyboard are function keys (the function keys (50), see col. 3, 45-46 and Fig 1(50)).

Regarding claim 13, Kim teaches the display comprises a single window having a plurality of icons ((LCD screen (70), see col. 3, lines 56 and Fig. 1 (70)), design choice).

Regarding claim 14, Kim teaches the display comprises a plurality of windows, each window having at least one icon (icons may be displayed within each of the designated 50-pixel by 50 pixel areas on the LCD screen, see col. 3, lines 59-60).

Regarding claim 15, Rosenberg teaches a method of configuring a keyboard (manipulatable keyboard 12, see col. 3, lines 55-60 and Fig. 1 (12)) comprising the acts of: (a) selecting an icon from a system monitor, (display screen 26 displays images of a game environment, operating system application, simulation, etc. See col. 13, 63-65 and Fig. 6 (26)) the icon corresponding to one of a software application (the computer displays "graphical objects" or "computer objects," which are logical software unit collections of data that may be displayed as images on a display screen, see col. 5, lines 14-19) (b) transmitting the icon from the monitor to a keyboard; (keyboard device 12 is coupled to host computer system 14 which includes a display device 26, by a bidirectional bus, the bi-directional bus sending signals in either direction between host computer system 14 and the Keyboard device, see col. 14, lines 7-15 )

Rosenberg does not teach displaying the icon on the keyboard.

Kim on the other hand teaches screen LCD (70) extending above function keys (50) as shown in Fig. 1(col. 3, lines 40-41).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Rosenberg's keyboard device (12) shown in Fig. 6 to adapt Kim's display (70) as configured in Fig. 1 because mounting the display screen (70) on a keyboard device helps display icons representative of operations performed by function keys as taught by Kim (col. 2, lines 25-29)

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Regarding claim 16, Rosenberg teaches act (a) comprises the step of selecting an icon from a website (computer system 14 can be used with respect to internet and World Wide Web, see col. 4, lines 54-65).

Regarding claim 17, Rosenberg teaches act (a) comprises the step of selecting an icon from an operating system window (host computer can be used with respect to windows operating system col. 4, lines 45-49).

Regarding claim 18, Rosenberg teaches the step of selecting an icon using a mouse (mouse 30 can be connected to the host computer (14), see col. 5, lines 36-37 and Fig. 1(30)).

Regarding claim 19, Rosenberg teaches placing the icon in a predetermined location on a system monitor (display screen 26 displays images of a game environment, operating system application, simulation, etc. See col. 13, 63-65 and Fig. 6 (26)).

Regarding claim 20, Rosenberg teaches the step of placing the icon in a keyboard configuration window on the system monitor (keyboard device 12 is coupled to host computer system 14 which includes a display device 26, by a bidirectional bus, the bi-directional bus sending signals in either direction between host computer system 14 and the Keyboard device, see col. 14, lines 7-15)

Regarding claim 21, Rosenberg teaches the step of transmitting the icon from the monitor to a keyboard using a universal serial bus cable (keyboard device 12 is coupled to host computer system 14 by, Universal Serial Bus USB, see col. 14, lines 10-15).

Kim teaches the step of displaying the icon on a liquid crystal display (icons may be displayed within each of the designated 50-pixel by 50 pixel areas on the LCD screen, see col. 3, lines 59-60).

Regarding claim 23, Rosenberg teaches a method of launching one of a software application (a system (10) including a program implemented by the host computer (14), see col. 3, lines 54-60, and Fig. 1 (10,14)) comprising the acts of: (a) selecting an icon from a system monitor, (display screen 26 displays images of a game environment, operating system application, simulation, etc. See col. 13, 63-65 and Fig. 6 (26)) the icon corresponding to one of a software application (the computer displays "graphical objects" or "computer objects," which are logical software unit collections of data that may be displayed as images on a display screen, see col. 5, lines 14-19) (b) transmitting the icon from the monitor to a keyboard; (keyboard device 12 is coupled to host computer system 14 which includes a display device 26, by a bidirectional bus, the bi-directional bus sending signals in either direction between host computer system 14 and the Keyboard device, see col. 14, lines 7-15 )

Rosenberg does not teach displaying the icon on the keyboard; and (d) depressing a key on the keyboard corresponding to the icon.

Kim on the other hand teaches screen LCD (70) extending above function keys (50) as shown in Fig. 1(col. 3, lines 40-41).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Rosenberg's keyboard device (12) shown in Fig. 6 to adapt Kim's display (70) as configured in Fig. 1 because mounting the display screen (70) on a keyboard device helps display icons representative of operations performed by function keys as taught by Kim (col. 2, lines 25-29)

Regarding claim 24, Rosenberg teaches act (a) comprises the act of selecting an icon from a web site (computer system 14 can be used with respect to internet and World Wide Web), see col. 4, lines 54-65).

Regarding claim 25, Rosenberg teaches act (a) comprises the act of selecting an icon from an operating system window (host computer can be used with respect to windows operating system col. 4, lines 45-49).

Regarding claim 26, Rosenberg teaches act (a) comprises the act of selecting an icon using a mouse (mouse 30 can be connected to the host computer (14), see col. 5, lines 36-37 and Fig. 1(30))

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Regarding claim 27, Rosenberg teaches act (a) comprises the act of placing the icon in a predetermined location on a system monitor (display screen 26 displays images of a game environment, operating system application, simulation, etc. See col. 13, 63-65 and Fig. 6 (26)).

Regarding claim 28, Rosenberg teaches act of placing the icon in a keyboard configuration window on the system monitor (keyboard device 12 is coupled to host computer system 14 which includes a display device 26, by a bidirectional bus, the bi-directional bus sending signals in either direction between host computer system 14 and the Keyboard device, see col. 14, lines 7-15)

Regarding claim 29, Rosenberg teaches the act of transmitting the icon from the monitor to a keyboard using a universal serial bus cable (keyboard device 12 is coupled to host computer system 14 by, Universal Serial Bus USB, see col. 14, lines 10-15).

Regarding claim 30, Kim teaches act (c) comprises the step of displaying the icon on a liquid crystal display (icons may be displayed within each of the designated 50-pixel by 50 pixel areas on the LCD screen, see col. 3, lines 59-60).

Regarding claim 31, Kim teaches act (d) comprises the step of depressing a function key on the keyboard (LCD screen 70 with respect to multiple function keys 50, see col. 3, lines 40-55).



Regarding claim 32, Kim teaches act (d) comprises launching one of a software application and corresponding to the icon corresponding to the depressed key (a user may assign a specified series of keystrokes to a given function key. In PROGRAM mode, the user is able to define or reconfigure a function key using the appropriate keystrokes necessary to perform the desired functions, see col. 3, lines 64-66 and col. 4, lines 9-21).

### ***Conclusion***

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

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7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Abbas I. Abdulsalam whose telephone number is 571-272-7685. The examiner can normally be reached on Monday through Friday from 9:00 A.M. to 5:30 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Hjerpe, can be reached on 571-272-7691. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.


Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Abbas Abdulsalam

Examiner

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September 28, 2006



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